

**A COIN HOLDER AND DISPENSER  
ADAPTED FOR USE WITH A COIN-OPERATED SLOT MACHINE**

BACKGROUND OF THE INVENTION

1. Field of the Invention

5           The present invention relates to the general art of  
coin handling, and to the particular field of coin holders  
for dispensing single coins.

2. Discussion of Background Informatuain

10           Many people enjoy playing slot machines. In most cases,  
the player is required to store coins for use with the slot  
machines. Such coin storage can be cumbersome and  
inconvenient.

          Therefore, there is a need for a means to store and  
dispense coins that can be used for a slot machine in a  
15   convenient manner.

          Many slot machines require the player to deposit a coin  
into the coin slot of the machine. Since many players tend  
to play a slot machine for great lengths of time, the  
repeated movement of removing a coin from a storage  
20   container and then placing the coin into the slot of the  
machine may be tiring and difficult, especially if the  
person is disabled.

Therefore, there is a need for a means to store and dispense coins that can be used for a slot machine and which can be used in an easy and convenient manner.

5 While the art contains devices which can hold and dispense coins, many of these known devices do not automatically dispense coins in a manner which is convenient and efficient for use with a slot machine.

10 Therefore, there is a need for a means to store and dispense coins that can be used for a slot machine and which can efficiently store coins for use and which can easily and efficiently dispense those coins directly into the coin slot of the slot machine whereby long use of a slot machine, even for a disabled person, is facilitated.

#### PRINCIPAL OBJECTS OF THE INVENTION

15 It is a main object of the present invention to provide a means to store and dispense coins that can be used for a slot machine in a convenient manner.

20 It is another object of the present invention to provide a means to store and dispense coins that can be used for a slot machine and which can be used in an easy and convenient manner.

It is specific object of the present invention to provide a means to store and dispense coins that can be used

for a slot machine and which can efficiently store coins for use and which can easily and efficiently dispense those coins directly into the coin slot of the slot machine whereby long use of a slot machine, even for a disabled  
5 person, is facilitated.

#### SUMMARY OF THE INVENTION

These, and other, objects are achieved by a coin holder and dispenser for use in conjunction with a coin-operated slot machine which comprises a coin holder unit which  
10 includes a cylindrical base element having a first end, a second end, an axial dimension, an inner surface, an outer surface, a cylindrical wall connecting the first end to the second end, a coin-dispensing slot defined through the wall near the second end of the base element, the coin-dispensing  
15 slot having a first edge extending radially of the cylindrical wall, and a second edge which extends at an oblique angle with respect to the first edge and with respect to the axial dimension; a plunger slidably located inside the coin holder unit; an outer shell unit which  
20 accommodates the wall of the coin holder unit when in use, the outer shell unit including a handle having a distal end, the distal end of the handle being movable between a retracted position and a coin-dispensing position; a spring

element located inside the wall of the coin holder unit and  
inside the outer shell unit, the spring element having one  
end abutting the outer shell unit and one end abutting the  
plunger and biasing the plunger toward the second end of the  
base element in the direction of the axial dimension of the  
5 base element; a coin-dispensing plunger slidably mounted on  
the outer shell unit, the coin-dispensing plunger including  
a hole which is located to releasably accommodate the distal  
end of the handle of the outer shell unit to releasably lock  
the coin-dispensing plunger to the handle of the outer shell  
10 unit to move therewith, the plunger being slidable between a  
retracted position and a coin-dispensing position when the  
distal end of the handle is moved between the retracted  
position and the coin-dispensing position; a lock unit  
15 releasably locking the outer shell unit to the coin holder  
unit when the lock unit is engaged, the lock unit including  
a groove defined in the base element, a lever element  
pivotally mounted on the outer shell unit, and a tooth on  
the lever element; and the coin holder unit being adapted to  
20 accommodate a plurality of coins in engaging contact with  
the plunger and having one coin located adjacent to the  
coin-dispensing slot to be deposited in a coin-accepting  
slot of a coin-operated slot machine under the influence of  
the spring element and under the influence of the coin-

dispensing plunger as the distal end of the handle is moved from the retracted position of the distal end to the coin-dispensing position of the handle.

5 The device embodying the present invention provides a means to store and dispense coins that can be used for a slot machine and which can efficiently store coins for use and which can easily and efficiently dispense those coins directly into the coin slot of the slot machine whereby long use of a slot machine, even for a disabled person, is  
10 facilitated.

#### BRIEF DESCRIPTION OF THE DRAWING FIGURES

Figure 1 is a perspective view of a coin holder and dispenser embodying the present invention.

Figure 2 is an exploded elevational view of the coin  
15 holder and dispenser embodying the present invention.

Figure 3 is an elevational view taken along line 3-3 of Figure 1.

Figure 4A is a perspective view of a coin holder unit which is included in the coin holder and dispenser embodying  
20 the present invention.

Figure 4B is a view of a dispensing slot which is included in the coin holder and dispenser embodying the present invention.

Figure 5 is a perspective view of a plunger which is included in the coin holder and dispenser embodying the present invention.

Figure 6 is a perspective view of an outer shell unit  
5 which is included in the coin holder and dispenser embodying the present invention.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Other objects, features and advantages of the invention will become apparent from a consideration of the following  
10 detailed description and the accompanying drawings.

Referring to the figures, it can be understood that the present invention is embodied in a coin holder and dispenser  
10 which is adapted for use in conjunction with a coin-operated slot machine. The holder and dispenser 10 comprises  
15 a coin holder unit 12 which is shown in Figures 2 and 4A and which includes a base element 14. Base element 14 includes a hollow cylindrical base portion 16 having a first end 18, a second end 20, and an axial dimension 22 which extends  
between the first end 18 of the base portion 14 and the  
20 second end 20 of the base portion 14. The base portion 14 further includes an outer dimension 24 and a cylindrical side wall 26 connecting the first end 18 of the base portion 14 to the second end 20 of the base portion 16. A coin-

dispensing slot 30 is defined through the side wall 26 of the base portion 14 near the first end 18 of the base portion 14. As best shown in Figure 4B, the coin-dispensing slot 30 extends radially of the cylindrical base portion 16.

5 Coin-dispensing slot 30 includes a first edge 32 which extends radially of the cylindrical base portion 16 and a second edge 34. Second edge 34 is spaced apart from the first edge 32 in the direction of the axial dimension 22 of the base portion 16. The second edge 34 extends at an  
10 oblique angle,  $\theta$ , with respect to the first edge 32 and with respect to the axial dimension 22 of the base portion 14. The second edge 34 includes a first end 36 and a second end 38 with the second end 38 of the second edge 34 being located closer to the second end 20 of the base portion 16  
15 than the first end 36 of the second edge 34.

A hollow cylindrical body portion 50 has a first end 52, a second end 54, and a longitudinal axis 56 which extends between the first end 52 of the body portion 50 and the second end 54 of the body portion 50. The body portion  
20 50 further includes an inner surface 58, an outer surface 60, an outer dimension 62, and an inner dimension 64. The outer dimension 24 of the base portion 16 is larger than the outer dimension 62 of the body portion 50. The hollow cylindrical body portion 50 is adapted to accommodate a

plurality of coins.

The base portion 16 is unitary with the body portion 50 and is located adjacent to the first end 52 of the body portion 50. The body portion 50 has an access opening 66  
5 defined therein adjacent to the second end 54 of the body portion 50.

A cylindrical plunger 70 is shown in Figure 5 and has an arcuate outer circumference 72 which is slightly smaller than inner dimension 64 of the body portion 50. The plunger  
10 70 has a first surface 74 and a second surface 76. In use, the plunger 70 is slidably received in the body portion 50 to move along the longitudinal axis 56 of the body portion 50 between a first position adjacent to the second end 54 of the body portion 50 and a second position adjacent to the  
15 first end 52 of the body portion 50. The first position of the plunger 70 is shown in Figure 3.

An outer shell unit 90 is shown in Figures 1 and 2 and includes a hollow cylindrical body element 92 which has a closed first end 94, a second end 96, and a longitudinal  
20 axis 98 which extends between the first end 94 of the outer shell unit 90 and the second end 96 of the outer shell unit 90. The shell unit 90 further includes an outer surface 100 having an outer dimension 102 and an inner surface 104 having an inner dimension 106. The inner dimension 106 of



the body element 92 of the outer shell unit 90 is larger than the outer dimension 62 of the body portion 50 of the coin holder unit 12 so the coin holder unit 12 can be accommodated inside the outer shell unit 90 as shown in

5 Figure 3. The body element 92 of the outer shell unit 90 further includes an access opening 110 defined in the second end 96 of the body element 92 of the shell unit 90. A spring seat element 112 is located on the closed first end 94 of the body element 92 of the outer shell unit 90.

10 An outer clip 120 is on the outer surface 100 of the body element 92 of the outer shell unit 90. The outer clip 120 includes a proximal end 121 connected to the outer shell unit 90 and a distal end 122, and has a triangular projection 123 on the outer clip 120 adjacent to the distal  
15 end 122. As indicated by double-headed arrow DHA, the outer clip 120 is movably mounted on the outer shell unit 90 to move between a coin-dispensing position indicated in dotted lines in Figure 2, with the distal end 122 of the outer clip 120 located adjacent to the outer shell unit 90 and a  
20 retracted position shown in solid lines in Figure 2, with the distal end 122 of the outer clip 120 spaced apart from the outer shell unit 90.

In use, the body portion 50 of the coin holder unit 12 is slidably received in the body element 92 of the outer

shell unit 90, as shown in Figure 3.

A coin-moving plunger 124 is slidably mounted on hollow cylindrical body portion 50 to move as indicated by double-headed arrow MD between a coin-dispensing position shown in dotted lines in Figure 3 and a retracted position shown in solid lines in Figure 3. Plunger 124 includes a distal end 125, which is located to abut a coin located adjacent to dispensing slot 30 and force that coin out of the slot 30 when the outer clip 120 is moved into the coin-dispensing position, and a proximal end 126. A hole 127 is defined through plunger 124 and accommodates the distal end 122 of the outer clip 120 to connect the outer clip 120 to the plunger 124. The triangular shape of projection 123 permits the outer clip 120 to be attached to the plunger 124 and to be released from the plunger 124 by holding the plunger 124 while moving the outer clip 120 to release the projection 123 from the plunger 124. The release of the outer clip 120 from the plunger 124 permits the outer shell 90 to be removed from the body portion 50 so the device 10 can be opened to load coins thereinto. The coin-moving plunger 124 can be plate-like in shape.

A lock unit 130 releasably locks the coin holder unit 12 to the outer shell unit 90 when the lock 130 is engaged as shown in Figure 3. The lock unit 130 includes a base

section 132 on the outer surface 60 of the cylindrical body portion 50 of the coin holder unit 12 adjacent to the slot 30, a catch groove 134 defined in the base section 132 of the lock unit 130, and a shoulder 136 on the base section 132.

A catch element 138 is mounted on the outer surface 100 of the body element 92 of the outer shell unit 90 adjacent to the second end 96 of the body element 92 of the outer shell unit 90. Catch element 138 includes a pivot element 140, mounted on the body element 92 of the outer shell unit 90, and a lever element 142. Lever 142 has a first end 144 and a second end 146, and is connected to the pivot element 140. As can be understood from the foregoing, lever element 138 is a first class lever. The lever element 138 forms a cylinder with an inner dimension 148 that is larger than the outer dimension 102 of the body element 92 of the outer shell unit 90. The lever element 138 is in surrounding relation with the body element 92 of the outer shell unit 90.

A catch tooth 150 is on the second end 144 of the lever element 142. The catch tooth 150 includes a leading shoulder 152 that is adapted to engage shoulder 136 on the base section 132 when the lock element 130 is being engaged to releasably lock the coin holder unit 12 to the outer shell

unit 90.

The lever element 142 is mounted on the outer surface 100 of the body element 92 of the outer shell unit 90 by the pivot element 140 to pivotally move between a first  
5 orientation, shown in Figure 3, with the catch tooth 150 located adjacent to a location which is in a surface containing the outer surface 100 of the body element 92 of the outer shell unit 90 and a second orientation with the catch element 138 in a location spaced apart from the  
10 location which is in a surface containing the outer surface 100 of the body element 92 of the outer shell unit 90.

As can be understood from Figure 3, the second end 146 of the lever element 142 moves between a first location adjacent to the outer surface 100 of the body 92 of the  
15 outer shell unit 90 when the lever element 142 is in the second position thereof.

As can be understood from the foregoing, the leading shoulder 152 of the catch tooth 150 is located to slidably abut the shoulder 136 of the lock unit 130 to move the lever  
20 element 142 toward the second orientation thereof as the lock unit 130 is moved into a position to releasably lock the coin holder unit 12 to the outer shell unit 90 from a position in which the coin holder unit 12 is unlocked from the outer shell unit 90.

As shown in Figure 3, the catch tooth 150 is located in the catch groove 134 when the lever element 142 is in the first orientation thereof and the lock element 130 is engaged. The catch tooth 150 is spaced apart from the catch  
5 groove 134 when the lever element 142 is in the second orientation thereof.

A spring element 160 is located inside the hollow cylindrical body element 92 of the outer shell unit 90. Spring element 160 includes a first end 162 which is in  
10 abutting contact with the inner surface 104 of the hollow body element 92 of the outer shell unit adjacent to the spring seat element 112 on the hollow body element 92 of the outer shell unit 90 when the spring element 160 is in a use condition as shown in Figure 3. Spring element 160 further  
15 includes a second end 164 which is in abutting contact with the first surface 74 of the plunger 70 in a use condition of the spring element 160. The spring element 160 biases the plunger 70 towards the second position of the plunger 70.

The coin holder unit 12 is sized and adapted to  
20 slidably contain a plurality of coins, such as quarters Q shown in Figure 2, with one coin Q1 of the plurality of coins in abutting contact with the second surface 76 of the plunger 70 and at least one coin Q2 of the plurality of coins located adjacent to the coin-dispensing slot 30

defined through the side wall 26 of the base portion 16 of  
the coin holder unit 12. Coin-dispensing slot 30 is sized  
and adapted to have the at least one coin slide through the  
slot 30 along the second edge 34 of coin-dispensing slot 30  
5 into a coin-accepting slot of a coin-operated slot machine  
under the influence of the bias of the spring element 160  
when the handle is moved into the coin-dispensing position  
and the plunger 70 abuts the one coin to move the one coin  
through the coin-dispensing slot 30 when the handle is moved  
10 into the coin-dispensing position.

It is understood that while certain forms of the  
present invention have been illustrated and described  
herein, it is not to be limited to the specific forms or  
arrangements of parts described and shown.